



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,258	01/29/2002	Hijin Sato	214581US2PCT	8782

22850 7590 05/27/2004

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

AMINZAY, SHAIMA Q

ART UNIT	PAPER NUMBER
----------	--------------

2684

DATE MAILED: 05/27/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/926,258

Applicant(s)

SATO ET AL.

Examiner

Shaima Q. Aminzay

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2001.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 20 is/are allowed.
6) ☒ Claim(s) 1-19 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5, 2/1/2002.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: Application filed on 2/2/2000.
2. Independent Claims 1, 10, 11, 12, 16, 17, and dependent claims 2-9, 13-15, and 18-19 are pending in the case.
3. Independent claim 20 is allowed.
4. The present title of the application is "Wireless base station, method of selecting wireless base station, method of multicasting, and wireless terminal".

NON-FINAL ACTION

Claim Rejections - 35 USC § 103

- ◆ The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- ◆ Claims 1-6, and 8-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima U. S. Patent number 6625442 over Rune U. S. Patent number 6434396.

5. Regarding claims 1, and 2, and 9 Kojima teaches a wireless base station which is connected to a plurality of wireless terminals and provides service for

the plurality of wireless terminals (see for example, column 1, lines 14-15, and lines 62-66).

However, Kojima does not teach multicasting service, and the wireless base station determines autonomously whether the wireless base station provides the multicasting service for the plurality of wireless terminals.

Rune teaches the wireless base station provides the multicasting service for the plurality of wireless terminals (see for example, column 9, lines 3-6, and lines 21-29).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Rune's wireless base station multicasting function with Kojima's wireless base station that connects to plurality of wireless terminals to provide a base station with multicast feature "to minimize the radio and network resources requirements for transmitting payload information from the stationary part of a cellular radio communications system to a particular mobile station, once a connection has been established with the mobile station" (Rune, column 1, lines 61-65).

6. Regarding claim 3, Kojima and Rune teach claim 1, and further Rune teaches the base station provides the multicasting service based on a service area (see for example, column 4, lines 57-59, and 62-65).

7. Regarding claim 4, Kojima and Rune teach claim 1, and further Kojima teaches the base station overlap service (see for example, Figure 1, service area 1 and 2 are overlapped).
8. Regarding claims 5, and 6, Kojima and Rune teach claim 1, and further Rune teaches the multicasting service is made based on a service state of a neighboring wireless base station (see for example, column 9, lines 3-6, and 16-29).
9. Regarding claim 8, and 9, Kojima and Rune teach claim 1, and further Kojima teaches a transmitting means for transmitting a first state signal to the control station (see for example, column 10, lines 28-29, "the base station 5 transmitted the first piece of private data information to the exchange and control station 7"), and a receiving means for receiving a second state signal from the control station (see for example, column 3, lines 17-22), and the wireless base station provides services based on instructions received from the control station (see for example, column 3, lines 48-67 (see for example of the instructions contents), and column 4, lines 24-29).
10. Regarding claims 10, and 11, Kojima teaches a wireless base station which is connected to a plurality of wireless terminals and provides service for the plurality of wireless terminals (see for example, column 1, lines 14-15, and lines 62-66), and comprising: a transmitting means for transmitting a first state signal to the control station (see for example, column 10, lines 28-29, "the base station 5 transmitted the first piece of private data information to the exchange and control

station 7”), and a receiving means for receiving a second state signal from the control station (see for example, column 3, lines 17-22), and the wireless base station provides services based on instructions received from the control station (see for example, column 3, lines 48-67 (example of the instructions contents), and column 4, lines 24-29).

However, Kojima does not teach the multicasting feature.

Rune teaches the wireless base station provides the multicasting service for the plurality of wireless terminals (see for example, column 9, lines 3-6, and lines 21-29).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Rune's wireless base station multicasting function with Kojima's wireless base station that connects to plurality of wireless terminals to provide a base station with multicast feature “to minimize the radio and network resources requirements for transmitting payload information from the stationary part of a cellular radio communications system to a particular mobile station, once a connection has been established with the mobile station” (Rune, column 1, lines 61-65).

11. Regarding claims 12, 13, 14, 15, and 16, Kojima teaches selecting a wireless base station for a wireless terminal (see for example, column 1, lines 59-67 continued to column 2, lines 1-14), and the wireless terminal can receive information from a plurality of wireless base stations (see for example, column 1, lines 60-66), and the wireless terminal selects one of the plurality of wireless

base stations so as to make the number of the wireless base stations that send the same information as small as possible (see for example, column 2, lines 50-55; data is being sent to a mobile terminal by one base station at a time such as 4 or 5).

However, Kojima does not teach the multicasting feature.

Rune teaches the wireless base station provides the multicasting service for the plurality of wireless terminals (see for example, column 9, lines 3-6, and lines 21-29).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Rune's wireless base station multicasting function with Kojima's wireless base station that connects to plurality of wireless terminals to provide a base station with multicast feature "to minimize the radio and network resources requirements for transmitting payload information from the stationary part of a cellular radio communications system to a particular mobile station, once a connection has been established with the mobile station" (Rune, column 1, lines 61-65).

◆ Claims 17, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima U. S. Patent number 6625442 over Maher U. S. Patent number 6298058.

12. Regarding claims 17, 18, and 19 Kojima teaches a wireless base station which provides service for a wireless terminal (see for example, Figure 1, column

2, lines 39-40).

However, Kojima does not teach Maher teaches the multicasting system, and when a join message from the wireless terminal is received at the base station, and when a leave message received from the terminal at the wireless base station.

Maher teaches the multicasting system (see for example, column 1, lines 6-8), and when a join message from the wireless terminal is received at the base station (see for example, column 9, lines 44-62), and when a leave message received from the terminal at the wireless base station (see for example, column 9, lines 44-58).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Maher's multicasting system zone control with Kojima's wireless base station that connects to plurality of wireless terminals to provide a base station with multicast feature with dispatch service that can provide relatively more efficiently and less costly than in traditional circuit-switched networks (Maher, column 1, lines 45-50).

◆ Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima U. S. Patent number 6625442 over Rune U. S. Patent number 6434396, and further in view of Sydon et al. U. S. Patent number 6480721.

13. Regarding claim 8, Kojima and Rune teach claim 1.

However, Kojima and Rune do not teach base station and the hop number.

Sydon teaches the base station and the hop number (see for example, column 4, lines 29-45).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Sydon's wireless communication system hopping number scheme (column 1, lines 18-22) with Rune's multicasting system zone control and with Kojima's wireless base station that connects to plurality of wireless terminals to provide a base station with multicast feature and to provide a cordless telephone system with a frequency hopping scheme to ensure that the cordless system does not violate restrictions on the use of frequencies within the FCC restricted ISM (Industrial, Scientific and Medical) band (Sydon, column 1, lines 64-67).

Allowable Subject Matter

14. Claim 20 is allowed.

Reasons for Allowance

15. The following is an examiner's statement of reason for allowance:

The prior art specifically Kojima, Rune, and Sydon are failed to render obviousness in combination or individually and failed to anticipate individually the following underlined limitations:

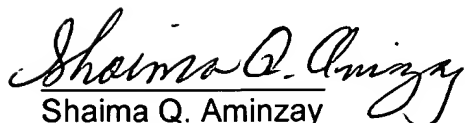
"A wireless terminal which receives a multicasting service provided by a wireless base station, characterized in comprising: an analysis unit determining the number of wireless terminals connected to a multicast group, based on a received control data; and a comparison unit determining whether the determined number is larger than the number of wireless terminals currently connected to the base station, wherein the wireless terminal selects one of connection of the wireless terminal to the base station and disconnection of the wireless terminal from the base station based on the result of the determination of the comparison unit, so as to make the number of wireless base stations that send identical multicasting information as small as possible" as disclosed in claim 20.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 form.

Inquiry

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shaima Q. Aminzay whose telephone number is 703-305-8723. The examiner can normally be reached on 7:00 AM -5:00 PM.
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service telephone number is 703-305-3900.


Shaima Q. Aminzay
(Examiner)


NAY MAUNG
SUPERVISORY PATENT EXAMINER

Nay Maung
(SPE)

Art Unit 2684

May 20, 2004